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STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

May 22 2002

Mr Bruce Morrison
U S Environmental Protection Agency
901 N 5th St
Kansas City KS 66101

Dear Mr Morrison

I have reviewed the Herculaneum Lead Project – Deposition Sampling Task prepared by the Idaho National Engineering and Environmental Laboratory In general, it was my understanding from conference calls that the effort was going to be focused on composite samples from the same residential yard on a regular basis and in situ samples from the exact location on a regular basis correlated with existing air monitoring locations I m not sure why this approach was disregarded in favor of deposition collectors My specific comments are provided below

1 Site Desription and Background, Page 2 surface sampling has shown Pb results much higher than 12,800 ppm in surface soils The report should present correct maximum value if the results are stated in this manner
2 Mitigative Actions To Date Page 2 the 2nd bullet should be corrected *Lead dust on and adjacent to haul roads is being vacuumed up on a continuous basis, but concentrations fluctuate between x? and y? (get concentrations from J Silver)
3 Available Data and/or Data Used for Input to this Plan Page 3 the historic recontamination analysis based on houses remediated by Doe Run since 1990 should be included in this discussion That analysis is the main reason the agencies decided to pursue redeposition as an issue of concern
4 Objectives #2 Page 4 the rate of recontamination should be determined as mass of lead per kilogram of soil per unit time, not how much lead per area per unit time
5 Pathways from Airborne Lead Particulate to Elevated Blood Lead page 4 and page 5 it is premature to say that controls are in place to reduce this pathway to a minor or non-existent pathway
6 Deposition Sampling Methods, page 5, soil boxes are discounted as too experimental However, the soil box that was discussed in conference calls was simply a box filled with soil that would make it possible to sample the same location with the XRF every time and to co-locate the soil sampling with the existing air monitoring network INEEL has not explained why this will not be conducted

7 Deposition Collectors Page 5 why have deposition collectors been offered as the preferred method over soil boxes or some other repetitive in situ sample of soil? The decision criteria will be based on a mg/kg/year of Pb in soil, not a measure of surface area

8 Soil, Page 6, In-Situ XRF sampling is not thoroughly explained It is important in this exercise to take an XRF reading in the exact same location every time Also since we are dealing with very fine nuances and small increments of concentration change between each sampling event, it is very important to maintain very tight controls on the precision and accuracy of the instrument I would include a standard test soil analyses at the beginning and end of each day in the quality control procedures for the XRF Also I recommend some minimum time or standard deviation value be achieved for each XRF reading Generally, the longer time taken for each reading the higher the accuracy

9 Low-flow Samplers Page 6, what purpose do the low-flow samplers serve? – OUT

You may contact me at (573) 751-1288 if you have any questions concerning this matter

Sincerely,

David E Mosby RG
Project Manager

c Tony Petruska, EPA
John Rustige DNR-APCP